

wireless services network **116** may be associated with an instant messaging (IM) server **122** that manages instant messaging for users of the network. In addition to the IM server **122**, in some embodiments, users may access external instant messaging web sites or servers **124** (e.g., America Online Instant Messaging (AIM) or MSN Instant Messaging). For example, users may download emoticons from such sites or servers.

[0029] The system **100** may include one or more optional personal base stations (PBSs) **126** that enable customers to integrate their wireless phones into a fixed, home-based system. In some embodiments the PBS **126** is located in or near the home or business of the user. The PBS **126** effectively treats the mobile device as a short-range mobile device (e.g., cordless phone) when the user is inside the home or business. When the mobile device leaves the range of the PBS, it then communicates via regular base stations, such as base station **104**.

[0030] FIG. 2 shows a block diagram of a typical mobile communication device **200**, such as a mobile handset. While a mobile phone is shown as the mobile communication device in FIG. 1, those skilled in the relevant art will appreciate that the invention can be practiced with other devices and configurations, including Internet appliances, hand-held devices, wearable computers, multiprocessor systems, microprocessor-based or programmable consumer electronics, set-top boxes, PDAs, portable laptop computers, and the like. The term “mobile device” is intended to include all such devices.

[0031] The mobile device **200** has one or more internal or external antennas **202** for receiving and transmitting electromagnetic signals such as radio frequency signals. A transceiver **204** is connected to the antenna(s) **202** and typically provides modulation and demodulation of the transmitted and received signals, respectively. A processor unit **206** connected to the transceiver **204** may comprise a signal processor, microprocessor, ASIC, or other control and processing logic circuitry. The processor unit **206** may perform signal coding, data processing, input/output processing, power control, and other functions necessary for implementing a mobile communication device. A customer may provide input to the processor unit **206** via a keypad **208**, microphone **210**, or display/touchpad **212**. While not illustrated, other input devices may be used, including a keyboard, a touch-sensitive screen, a pointing device such as a mouse or pen, a joystick, a game pad, a scanner, etc.

[0032] In turn, the processor unit **206** may provide information to the customer via the display/touchpad **212** or a speaker **214**.

[0033] The processor unit **206** may access information from, and store information in, a nonremovable memory **216** or a removable memory **218**. The nonremovable memory **216** may consist of RAM, ROM, a hard disk, or other well-known memory storage technologies. The removable memory **218** may consist of Subscriber Identity Module (SIM) cards, which are well known in GSM communication systems, or other well-known memory storage technologies, such as “smart cards.” Applications **220**, including instant messaging applications, wireless content browser applications, and address book applications can be implemented in either the removable memory **218** or the nonremovable memory **216**.

[0034] In the illustrated embodiment, the mobile device includes IM middleware **222** or an IM aggregator program so that the user of the mobile device can engage in instant messaging. The mobile device **200** also includes an application or applications related to emoticons **224** or similar displayable icons. In this way, when the user selects an emoticons key on the keypad or touch screen, the appropriate emoticons can be displayed on the mobile device display **212**. However, in alternate embodiments, all or part of the functionality provided by the IM middleware **222** and/or emoticon applications **224** may be handled remotely (e.g., by the IM server **122** of FIG. 1, or by the external IM servers **124**).

[0035] Unless described otherwise below, aspects of the invention may be practiced with conventional systems. Thus, the construction and operation of the various blocks shown in FIGS. 1 and 2 may be of conventional design, and need not be described in further detail herein to make and use the invention, because such blocks will be understood by those skilled in the relevant art. One skilled in the relevant art can readily make any modifications necessary to the blocks in FIGS. 1 and 2 (or other embodiments or Figures) based on the detailed description provided herein.

[0036] III. User Interface

[0037] The user interface of a mobile device configured for easy access to emoticons may include various keypad configurations, user screens, views, and other interfaces that allow users to easily select and use emoticons. Examples of such screens and keypads are described with respect to FIGS. 3-5. While only certain examples are given, a person skilled in the art will appreciate that many other interfaces and related techniques can be implemented without departing from the scope of the invention.

[0038] The terms “screen,” “window,” and “page” are generally used interchangeably herein. The pages described herein may be implemented using, for example, WML (wireless markup language), XHTML (extensible hypertext markup language), XML (extensible markup language), or HTML (hypertext markup language). In some embodiments, WML and XHTML decks offer similar functionality but may differ with respect to style guide and design requirements between the two languages (use of color, icons, etc.). The look and feel of WML pages are primarily text-based, with underlining used to highlight clickable links. XHTML is a richer development language, allowing the mobile device to present content that may stand out on many different levels. For example, XHTML may allow the use of front and background colors, bolding, and icons.

[0039] While certain ways of displaying information to users are shown and described with respect to certain Figures, those skilled in the relevant art will recognize that various other alternatives may be employed. The terms “screen,” “web page,” and “page” are generally used interchangeably herein. The pages or screens are stored and/or transmitted as display descriptions, as graphical user interfaces, or by other methods of depicting information on a screen (whether personal computer, PDA, mobile telephone, or other) where the layout and information or content to be displayed on the page is stored in memory, database, or another storage facility.

[0040] When implemented as web pages or wireless content, the screens are stored as display descriptions, graphical